

Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.—*Xenophon.*

Tillage and Pasturage are the two breasts
of the State.—*Sully.*

VOL. VII.

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P. D. BERNARD,


PUBLISHER AND PROPRIETOR.

C. T. BOTTS.

EDITOR.

✉ All Communications, concerning the Planter, must be addressed

P. D. BERNARD, *Richmond, Va.*

 For Terms see last page.

MARKET FOR WOOL.

It always gives us pleasure to chronicle any event which may advance the welfare of any portion of the agricultural community. We now wish to mention a fact which may be useful to the growers of wool who live within a distance of Richmond not too great for the transportation of their produce thereto. A woollen factory has been in operation there for several years past, but has been of little service to those who have Virginia wool for sale. Fine flannel has been hitherto the only goods manufactured, and the wool grown in our part of Virginia is all too coarse in quality to serve for that purpose. All the wool used has been imported. We have lately learned, however, that a change is about to be made there, and all the Virginia wool which can be procured will be wanted. Mr. Jones and the proprietors are now engaged in enlarging their establishment to nearly treble its present size, and their buildings and preparations will be completed, we believe, before the close of this summer. It will then manufacture nearly eight hundred thousand pounds of wool annually. They intend commencing the manufacture of blankets and negro cloths; and for this purpose, the coarse wool of our part of Virginia is admirably adapted. We have

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been informed by them that all of it they can get will be gladly received, and that a price as good as the market will justify will be paid. It is hardly possible that the quantity needed will be procured, and much that they manufacture must still be imported. But there are now so many modes of conveyance to Richmond, by land and by water, that large quantities might be brought here with small expense. Many farmers bring the rest of their produce here, who send their wool to other quarters. We think there are many so situated that they would find this their best market, and we hope it may be a profitable concern to all parties.

From the Maine Cultivator.

ON MANURES.

In this part of our country we can hardly expect to succeed in farming without a competent supply of manure. In new States where lands are first cleared, the soil will yield a few harvests without any other application than the ashes that are left at the first burning.

In Maine it has been customary to let lands lie idle after one or two crops, sowing no grass seed, planting no new trees, nor yet suffering the sprouts to run up and form a new timber lot. Cattle have been allowed to roam through the whole, getting a scanty living and cropping the thriftiest shoots just close enough to spoil them for all purposes.

When new lands are cleared the soil should never be run so hard with grain as to make it poor and unfit for grass. The seed should be sown with the first grain, and then something may be expected that is worth fencing in.

But we must keep stock and must be

De Melan

careful to save all the excrements, coupled with all the herbage that is not eaten, to restore what has been taken from it.—This is the principal resource of the farmer who dwells in the interior, and from whom we expect a great portion of the grain that is consumed in cities and towns where men and business congregate.

The manure from neat stock is more abundant than from other animals in this part of the country; and this manure is less likely to be injured by heating than that which is dropped by horses and sheep. But the manure from neat stock is much injured by freezing before it has been mixed with other. After it has frozen and again thawed two or three times it is found to have no scent or effluvia, and may be handled as freely as a lump of clay.

Horse stable manure is never injured so much by frost as by heat. When it is thrown out of a stable into a heap it soon begins to burn in pretty cold weather. In moderate weather it heats so much as to turn white and to lose three-fourths of its weight. Horse manure has, therefore, been less highly prized than it should be. But when rightly managed there is no kind of manure that operates on land better or remains longer in the soil. Some kinds of manure work sooner, but they are sooner spent. Hog manure, for instance, is active very early in the season, and it makes good corn, but we see little of its virtue in the succeeding year. Horse manure that has been well kept, and that has absorbed all the horse urine, is the most lasting kind of manure that we obtain from animals.

To prevent its turning white and burning in the heap, other matter should be mixed with it, three loads to one. Here is presented an excellent opportunity to improve and to decompose peat mud when it can be had. When there is none, loam or sand may be used. Sand is good when the manure is to be used on low land, or on a clayey soil.

Roast meat contains nearly double the nourishment of boiled, but boiled meat is

better adapted to weak digestion. Frying is one of the very worst methods of dressing food, as broiling is one of the best. Baked meat has a strong flavor, is deprived of some of its nutritious qualities, and is difficult of digestion. Spices, sauces and melted butter, should never be used by an invalid.—*Selected.*

From the Genesee Farmer.

WINTER KILLED WHEAT.

Mr. Editor,—Foremost among the various farm crops produced in Western New York in importance to the agriculturist, man of commerce, and the consumer, stands the wheat crop. Whatever affects that, for evil or for good, affects the temporal well being of all in the community. Among the many calamities which cause a failure of this crop none equals what is usually denominated winter killing. The past season, up to the present time, has been estimated by most farmers to have been one of our worst—and serious apprehensions may very justly be entertained that extensive damage will be sustained from this cause. However, in this town the last three favorable days have dispelled most of the fears of our farmers in relation to it here, as the sudden greenness it has assumed shows that it has not been much damaged.

But the cause and the cure of this calamity is a matter of more importance to know, than any speculations in relation to the extent of damage done to the present crop. Both, to my apprehension, are easily understood. The cause is the superabundance of surface water in the soil; and the cure, to provide means, either by a thorough system of under-draining, or some other method to draw it off so as to lay the young plants dry and warm.

It is a common remark which all practical farmers make, that the longer they plough and work their land, the heavier and more retentive of moisture it becomes; this explains the reason why, in numerous localities the land is so much more liable to heave, than when the country was

new; then, the subsoil being more permeable the water percolated through it, acting as a natural conduit; now, it stands upon the surface, or fills the earth like a sponge, till it is evaporated by the sun and winds.

What are usually denominated timber lands, are the most liable to damage from this cause. This description of lands have usually a retentive subsoil, particularly where you find it to consist in alternate ridges and black ash swales; the ridges are esteemed the best wheat lands because they are dryer, but if the superabundance of moisture were drawn off the swales would be the best, as they have been enriched by receiving the fertilizing elements from the high ground for ages, and, therefore, must contain all the grain forming elements in the greatest abundance. But these are the lands which are most liable to damage by winter killing.

We have on one of our best fields for wheat growing a swale, or basin, containing about one and a half acres of this description of land, which, for one or two crops after it was brought under cultivation produced wheat well; but afterwards utterly failed, for many years not producing enough to pay the expense of harvesting. Three years ago we put in some underdrains, sowing it to wheat in the fall; the crop was much the best part of the field. We have it now in wheat, and it has gone through the winter with less apparent damage than many other parts of the field. The first crop paid all the expenses of putting in the ditches; they have not only rendered it permanently valuable wheat land, but improved it in nearly an equal degree for all other crops.

If a thorough system of draining was adopted, it would add many millions of bushels of wheat to the annual product of this State. However rich the soil in all other necessary elements, if there be a superabundance of surface water, it will be ruinous to the crop. It is this, more than all her scientific manuring, that has so immensely increased the production of wheat in Great Britain, during the last quarter of a century. By its aid many

millions of bushels of wheat have been added to the annual product of that island, from lands which forty years ago were esteemed only fit for growing oats and other spring grains.

But the question will naturally be asked, will it pay the expense? In very many cases, perhaps most, it certainly would. If our farmers could buy good wheat lands for thirty dollars an acre, they would consider it cheap; now, if they can cause that they already possess, which will not now produce wheat, to yield them from twenty to thirty bushels per acre, would it not well pay a pretty large outlay to attain so desirable an end, especially when it is remembered that it would make the land more valuable for other crops?

It is not the object of your correspondent to point out how this is to be done, but to call the attention of our farmers to this subject, which is one of very great importance to the agricultural interest in this State. Who will make an experiment on a sufficiently large scale to test its expense and its utility? Whoever will do this, will earn the title of a benefactor to his country; and, if successful, will be sure to have abundance of followers, as our farmers are not such dolts as to refuse to do what they plainly perceive to be for their interest. W. S.

Wheatland, April 7, 1847.

ON GROWING CORN.

This crop is now becoming a very important one to the American farmer, and particularly so to those living in the Western States—and we who live in Western New York are not a little interested in the crop, as it will yield us a fair reward for our labor, provided the labor be judiciously applied. And who does not feel an abundant assurance that a ready market is found in Ireland and in various parts of Europe, for all kinds of grain that may be converted into bread? How long this state of things may remain is yet veiled in the future; it will, however, remain for years unquestionably.

By adopting the following method I have been more successful in growing corn than any other that has come under my personal observation.

In preparing the ground spread on a very liberal coat of manure before ploughing; that taken from the cow stable is preferable on my land, (a gravelly soil.) Deep ploughing will produce a greater growth in the latter part of the season, though the corn may not start quite as soon in the early part of summer. Cultivate or drag the ground with the furrows, that the grass may remain under.

Mark the ground three feet each way. Deep marking I have not found as good as light. Sometimes soaking seed will facilitate its growth, though generally I choose to plant my seed dry.

As soon as your corn is up so you can see the rows, start a cultivator—go through each way—take the weeds and grass from the hill, and give the corn a light earthing. When you have got through this process, put on your plaster. The remaining team work for the season should be done with the plough, in order to bring up the soil to the rays of the sun, and also within reach of the fibres of corn that are despatched in every direction from the hill to secure nutriment for the stalk. Before hoeing the last time a liberal quantity of wood ashes should be applied to each hill. The plaster will produce a good growth of stalks—the ashes will greatly increase the number of ears and add to the length and filling out of the same.

I have tried manuring in the hill, but in dry seasons it will not do as well. I have also tried putting lime, ashes and plaster in the hill, then dropping the seed on that and covering it in that way—but with no very good success.

J. D. C.

Locke, March, 1847.

FENCES.

Stone fences are not to be sneezed at, especially by Western farmers who have no stone to construct them with, for there

is none more durable or more safe, and I hold that a good fence on a farm is better than opium to make the owner sleep at night. He feels safe that he shall not wake up and find a whole drove of horses, cattle, sheep and hogs holding festival in his corn and wheat fields.

There are many who would be astonished to learn with what slim and contemptible means, what mere chips and shivers of stone, a good and lasting fence can be made. Let me enlighten you, dear reader. In the first place, in the line of your fence, sink and embed all the large boulders and ugly shaped hard heads firmly in the earth; then fill up the vacancies between with the next worst ones, till you form a pretty uniform course. Then commence with the small ones, even if it takes three or four to make the width, and constantly interpose headers of white cedar, chestnut, or oak; if no larger in diameter than your two fingers, they will answer. Build it quite *buttering*, as the masons say,—30 inches to 3 feet at the bottom, and at 4½ feet high, 1 foot. Now the next requisite to make the wall stand, and it is impervious, is to save and select from your materials a sufficient quantity to cap the whole. They should be a cleverly large size, considerably larger than a piece of chalk; in short, they should either be a foot long, so as to reach across, or one foot wide, and the longer the better. If not as flat as is desirable, chink and cobble up till they lay firm and secure.

Fences built of these light materials do not answer so well to set posts and increase their height by adding a couple of narrow boards, as the winds have too much power to disturb the structure.—But in those cases where stone enough cannot be found to build the entire fence a very pretty expedient is resorted to.—At about 6 inches from the ground a sill of 3 by 4 scantling or other wood is laid into the wall, projecting beyond it about 3 inches at each end—far enough to make a two-inch auger hole at the same angle as the wall, in which are fitted two stakes or rounds, with one or more yokes of two inch stuff, bored and fitted on, to lay on poles or rails—or another short

rail may be fitted on the top of the fence, into which the stakes enter, and into which is mortised a post to nail board to. This makes a very secure and durable fence, even when the stone work is only two feet above the surface.

IMPROVEMENT IN BREAD MAKING.

Persons who are so unfortunate as to be poorly provided with those agents of mastication, good teeth, will be glad to know that there is a method of baking bread which obviates the necessity of a hard crust. The crust commonly attached to the loaf is not only troublesome to such persons, but is often the cause of much waste. The way to be rid of it is as follows: When the loaves are moulded, and before they are set down to "rise," take a small quantity of clean lard, warm it, and rub it lightly over the loaves. The result will be a crust beautifully soft and tender throughout. This is not guess work.—*Exchange paper.*

GARDENS.

While on one hand we are delighted with the increased attention given to the embellishment of door-yards and grounds around dwellings in the country, we are, on the other, pained at the almost general and entire absence or exercise of correct taste or ordinary skill in conducting the operations. For instance, Miss A. wishes to have the plot of ground, say twenty, fifty, or one hundred feet square, in front of the house, *improved and ornamented*.—(The ladies, to their credit, generally move first in these matters.) She has it all spaded up and thrown into mounds, ridges, and all sorts of fanciful embankments—some of them high enough to serve our soldiers in Mexico for a defence—many looking precisely like graves in a cemetery, and, all in all, suggestive of any thing but symmetry or beauty. These errors, however, are quite pardonable; and we do not speak of them to ridicule them, or find fault, but if possible to set taste and opinion against them.

A piece of good green lawn in front of, or around a dwelling, is far preferable to this—looks infinitely more tasteful and *costs* less. Ornamental trees and shrubs, judiciously selected, may be planted promiscuously over it, singly or in clumps, as the situation and dimensions require.

Choice flowering plants, such as perpetual roses, verbenas, petunias, &c., that bloom most of the season, can be grown in masses or beds cut in the lawn—not raised into mounds or ridges, or, if raised at all, only in the centre, and that not over two or three inches above the level of the surrounding lawn. At our request several small places that we saw this spring, disfigured in the way we allude to, have been levelled down, and converted into lawn, and figures and beds cut out for flowering shrubs, plants, &c., and the proprietors have been well pleased with the change. We did intend to present some suggestions on this matter early in the spring, before gardening had commenced, but a press of other matters prevented us.

In our hot, dry climate, where plants require much moisture to flourish, it is a great error, even if it looked well, to plant them in narrow raised beds, surrounded by ditch-like walks. All walks should be wide enough for two persons to walk abreast, and should be kept well gravelled and nearly as high as the adjacent beds. A good verdant turf is, beyond all comparison, the best to surround a flower bed. A few starved flowers, on little beds of red earth, with a bad box edging and narrow deep clay walks, is a downright slander on a flower garden, and a violation of every thing like good taste.—There is no comfort to be taken in them, and we object entirely to them.—*Genesee Farmer.*

A FARMER'S BAROMETER.

A writer in the Georgia Farmer gives directions for making a cheap barometer, to aid in foretelling the weather. He takes a stick three feet long, and attaches to the but end a vial, full of air of course, and corked tight. The stick is then suspended

in a horizontal position on a pivot, where it will readily turn, say on a thread tied near its centre. When the storm is coming on, the air outside is lighter than that within the vial; of course the vial sinks, and indicates a change in the atmosphere. Such a barometer may be made in ten minutes, and some of our philosophic farmers will incline to have barometers of their own manufacture.

PLANTING TREES.

Many object to planting trees because the benefit of their labors can be enjoyed only by posterity. A very good story is told of an aged man who was engaged in transplanting some trees, and who was interrupted in his noble and philanthropic labor by a passer-by with the interrogation—"Why do you plant who cannot partake of the fruit?" The old man raised himself slowly, and gazing for a while on the querist replied—"Others planted trees for me before I was born: I have enjoyed the blessing, and partaken of the fruit of their labors and I now plant that others may enjoy the blessing of mine, and that the moral of gratitude may exist when I am dead and gone." Such sentiments are alike creditable to the head and heart.

There are many regions on almost every farm which, from their natural roughness and sterility, are susceptible of profitable use in no other way than by devoting them to the production of trees either for fruit or fuel. In England, Scotland and Wales, the lofty barren and heath covered mountains, are being converted into plantations of trees for the latter purpose. The old Duke of Athol, planted, on his estate in Perthshire, no less than fifteen thousand five hundred acres of mountain land, previous to planting, was rented for twenty-two cents yearly per statute acre, but is now valued at the enormous sum of thirty-two millions five hundred thousand dollars!

In this country, where, comparatively speaking, there is still an abundance of fuel; and where but a limited few possess the advantages requisite for extended

operations of this sort, we do not expect to see the planting of trees for fuel carried to great extent; but we do hope that more attention will be accorded to the subject than it has thus far elicited, and that plantations of valuable trees for fuel and mechanical purposes, as well as for fruit, will yet arise to adorn and beautify the land. Wherever there is a vacant spot, by the road sides or in the farm yard, let it be occupied by trees.

Travel through some of the older districts of New England, and witness the beautiful appearance presented by the hamlets and villages, where every edifice has its surrounding grove, and every street its colonades of maples, oaks, or elms.

THE POTATO ROT.

A disease now exists, and for several years has existed in the potato plant which has produced a great deal of mischief. Of course, the causes of this disease have been most earnestly sought for; but no theory that we have seen, seems to answer all the facts of the case. We will endeavor to give an account of some of them with our own observations upon them, and shall be always happy to hear from any one who is possessed of information upon this subject.

The disease seems to take its origin in the plant itself, though it may be for a long time propagated by means of cuttings of the root. When it attacks the leaf, it is propagated down its stem to the stalk. When it reaches the stalk all the leaves which are above that portion of it are as much isolated as if cut off by the gardener's knife, and wither as speedily. When it reaches the potato itself it becomes rotten, discolored, and moist, or shrivels, or decays with a large irregular cavity inside. Frequently the disease does not manifest itself for sometime after the potato is dug up; and cargoes have been shipped as sound which were found to be wholly worthless before the voyage's end.

The disease, as we already said, may be propagated for a long time, by planting the cuttings of a diseased potato. One thing is

evident about it; that it is not a local disease. For even if you cut off the diseased portion of the plant itself, the disease continues. And if you cut off the diseased portion of the potato root or tuber, the disease continues in the rest of it. It is, therefore, probable that it is a disease of the sap and cellular tissue, and thus affects the vital action of the whole plant. This idea derives probability from the fact that the common potato has been for years so cultivated as to produce an undue proportion of these constituents of the plant. And Dr. Smee reports, that the wild potatoes growing in the horticultural gardens at London are but little affected by this disease. Though they, too, have it, it produces no serious injury to their roots.

Among the alleged causes of this disease, (and their name is legion,) is cold. Every plant requires a certain temperature in which to exist, and alterations of it will certainly produce its destruction. But during the last three years there has been no such alteration. The last year has been rather remarkable for the unwonted mildness of its winter and heat of its summer, both in this country and in Europe. This cannot, therefore, be its cause; nor would it have been a probable supposition, even if there had been any such change of temperature, as the potato is a plant which flourishes under as wide a distribution of temperature as any whatever.

Light has been assumed to be the cause of the disease. Every plant requires a certain degree of light to exist and some are killed by too much of it. A correspondent in a late number of this paper supposes that the disease has been caused by keeping our seed potatoes above ground, after they are dug, instead of burying them. We think this a very improbable cause, because it is known that exposure to light renders the potato exceedingly fit for planting, and seems to increase their vitality. It renders them prone to sprout. But even if this could produce the disease, it has never had much opportunity for affecting the tuber; as after digging they are usually kept in cellars and store houses, places in which they are little exposed to the action of light.

Electricity has been supposed to be capable

of producing the rot; but we have no reason to suppose this element has existed in an undue proportion during the last few years, nor that the potato has been more exposed to it than it always has been. In the same way moisture has been assumed to be the possible cause, and various winds; but these theories have as little support. Various kinds of soil have been declared to be the cause. But the disease has long since attacked the plant on every variety of soil. Manures have next been discussed, and every kind has been blamed, guano, especially. But it also attacks potatoes with and without manure. They may do harm, however, in causing the plant to assume a very succulent and cellular character.

A great number of fungi, or vegetable parasites, have been observed upon the diseased potatoes, and these were long thought to be the cause of it. But these fungi have never been observed upon the potato until the disease has not merely begun, but progressed to an advanced stage. In truth, fungi upon diseased plants of every kind are a wise provision of nature to carry off decayed matter. They are never the predecessors, but they are very generally the followers of disease in plants. They perform the same office in the vegetable kingdom that the carrion crow, the beetle, &c., perform in the animal kingdom. Nature when left to herself, always provides for the removal of dead material, and her usual method is to convert death into life. To the fungi are left the duty of annihilating the exhalations of decaying vegetable matter. No sooner does a portion of a plant become diseased than the fungi grow thereupon, removing the soft decaying parts, and thus converting dead into living matter. A far more plausible theory, is that the plant has been for years propagated in an abnormal manner by cuttings instead of by seed, and that its vitality has been thereby worn out. If this be the true cause of the disease, all that is to be done to cure it, is to rear the potato from the seed again. There are many circumstances tending to substantiate this theory. There has been evidently a great loss of vitality in the potato during late years. It has very generally ceased to

produce seed, and a whole field may frequently be examined without finding a single ball.—The crop has wonderfully decreased in quantity. Five hundred bushels were once considered only a fair crop, with only ordinary care in cultivating and manuring.

That this loss of vitality proceeds from the long propagation of potatoes from cutting instead of by seed, is a fair inference from the known laws of nature. Every plant bears within it the principle of decay and disorganization from old age. Now, the plant raised from a cutting is but the prolongation of another plant, and must feel the effect of this law of nature in some measure at least. From this cause we find that though almost every plant may be propagated from a cutting as well as from seed. The latter method only can be perpetual. The best fruits of former times have all past away, and the varieties which we now have are the products of seedlings.

That the diminution of the vitality of the potato is owing to their having been thus propagated for too long a time, may, therefore, be regarded as exceedingly probable. But that this is the cause of the present disease is not so certain. By Dr. Smee, whose attention has been long devoted to it, this theory is said to be expressly contradicted by facts. He declares that he has constantly observed the disease upon potatoes which he reared from the seed, as well as upon those which had been propagated in the common method. We have not had an opportunity of bringing it to this test ourselves, but if this fact may be regarded as established, it overthrows this theory of the disease.

The last alleged cause which we shall notice is, that it is the result of a small insect, known among naturalists as the *alphis vastator*, which has been observed to have been extraordinarily prevalent among potato vines during the few past years. It is very small in size, and may be seen settled on the underside of the leaves of the plant. It lives upon the juices of the plant, which it sucks away by means of the apparatus which it inserts in the leaf. It takes away a portion of the sap necessary to form the substance of the stem and

root. Thus the proper qualities of the sap are destroyed, and it no longer returns the materials for the starch and cellular tissue of the plant. The natural vital functions being thus interfered with, the growth is impaired, and putrefaction and other changes begin in various parts.

Dr. Smee remarks, "The essence of the disease is a disturbance of the relation existing between the plant and the root, and consequently the sap and the cellular substance do not bear such proper relation as fits them for the performance of the vital functions; and this being the case, the vital functions necessarily cease, and the plant dies."

The turnip and the beet suffer from the attacks of this insect as the potato does. It also attacks wild plants, but the injury to them is very slight. It is only plants whose roots and underground stem have been unduly cultivated and increased, that are devastated by it in the manner which we have seen. For the reason that the relation between plant and root in these plants will not bear to be further interfered with.

In the potatoes grown from the cutting the disease will be propagated from the plant, because each new plant is merely an extension of the old one. This propagation of the disease gives rise to all those phenomena observed in the present potato rot.

If this theory of the disease be correct, the future prospects of the potato crop are extremely uncertain. They depend upon the continuance of the present number of the insect. If they continue to increase, the prospect is appalling. This crop must be annihilated. But nature does not long allow any animal to maintain an undue proportion to the rest of the animal kingdom. There are abundance of instances on record of particular insects making their appearance in great numbers, and after a while disappearing. There are many ways by which the balance may be restored. And after they disappear, the disease will probably wear itself out in a little while, or we may obtain healthy plants from the seed. Such a consummation is devoutly to be wished for.

DAIRY UTENSILS.

All dairy utensils should be scalded, rinsed and dried every time they are used. Glazed pottery is not considered desirable for milk or cream, as the acid contained in them acts upon the glazing (which is generally an oxide of lead,) and converts it into an active poison. Vessels made of wood are preferred by many to any others, for this purpose; although they are liable to become tainted with the acidity of the milk, in which case they can only be thoroughly cleansed by boiling; and when this fails, a little sal aeratus added to the boiling water will effectually neutralize the acid. The vessels must afterwards be immersed for two or three days in water, which should occasionally be changed. Milk vessels may be made of maple, white ash, hickory or white pine.—*Selected.*

For the Southern Planter.

COW DISTEMPER.

Mr. Editor,—Some time last year I saw an article in the Planter signed A. B., requesting information from those who knew what was a cure for the cow distemper. I have waited some time to see if an answer would appear from an abler hand than mine; but as I have seen none such, I will endeavor to give a remedy in the best manner I can. Take a double handful of the roots of wild horse-radish, washed clean, and one gallon of water. Boil these in any convenient vessel until half the water is evaporated, and when the remainder is cool, give one quart to the diseased cow. If she has not been long sick, this will, in most cases, effect a cure; but if the case requires it, give a second dose in about two hours. This is as much as I ever saw given to one cow, because this has always given relief; but if one under my care received not benefit from these two doses, I should certainly give another, and another after that, if necessary.

I am no botanist, but will endeavor to give you a description of the wild horse-radish, mentioned above. It is a plant

very commonly to be met with in the woods in our part of Virginia. Near the ground it shoots forth a number of spear-shaped leaves, of about a hand's length. From the midst of these rises a stalk from one to three feet in height, and about the size of a large goose quill, perhaps somewhat larger. Some few small leaves grow alternately up this stalk, and at top it branches off something like flax. It blooms from May to October, and bears a number of white blossoms, which assume a dark hue when ripe. The root is divided into a number of branches, some larger, some smaller than the finger.—They are very dark on the outside, and nearly as much so throughout.

Respectfully,

SAMUEL STONE.

Mecklenburg, June 7, 1847.

From the New York True Sun.

THE ART OF WOOL GROWING.

Farmers' Club met Tuesday. C. Henry Hall, Esq., in the chair.

Chas. L. Fleischmann exhibited eighteen specimens of wool, collected by him during his agricultural tour through Europe in 1845 and 1846, for the United States' Patent Office. The specimens were many of remarkable fineness, collected mostly from the flocks of Germany. Six of the samples were from the most celebrated flocks of Prussian Silesia, where the finest and best Merino wool in all Europe is grown, and one of the specimens was from a ram that was sold for \$4,000. The first specimen was from the side of a ewe of Prince Linchnowsky's stock-breed at Kuchelma—the most celebrated flock in Europe, for the last forty years, for its thorough blood. His various flocks of Merinoes, in Prussian Silesia, amount to eight thousand sheep, from which he sells yearly, on an average, 47,000 reichsthalers (\$27,000) worth of breeding bucks and ewes. It is not rare that he gets from 2,500 to 3,000 reichsthalers (\$1,600 to \$2,000) for a single buck. The gems of his flocks cannot be obtained for any price.

Mr. Flieschmann said that there were many erroneous notions in this country in regard to the fineness of wool, and in Europe they had different views of what constitutes fineness. In Silesia is the finest wool in Europe. Saxony does not now produce the finest wool. Silesia has obtained the golden fleece of Spain. This superiority has been obtained by forty years of care and attention. It was their object to furnish such a wool as the manufacturer desires. The wool of the Merino sheep of Silesia produces wool equally fine in all parts from the neck to the extremities. This was not so in other parts of Germany. Great care is taken in raising sheep. They are not exposed to the rain, but are taken up and put in stables when it rains. The rain mashes the dust into the wool and rots it. Great care is taken in the selection of rams and ewes for breeding. There are persons who make it their particular business to make these selections, and the rams and ewes are all numbered and registered.—The lambs are in like manner numbered and registered. The most perfect only are kept for breeding.

The feeding there is different from what it is among us. There, breeding and farming is made a science. The whole economy of farming there, is studied in schools as a science, and is carried to great perfection. The sheep are well and regularly fed. They have a mode of feeding for each month. In January, the breeding flock is fed in the following manner: In the morning, one pound *sain foïn* (good hay) is given to each sheep—they are watered at nine o'clock; at ten, half pound of hay, second quality—two o'clock, ditto; at three, watered; and in the evening, one pound mixed hay. They are kept at nearly a uniform temperature—60 degrees of Fahrenheit, and below. If the temperature be kept too high, the lambs will die. In February for coupling rams: in the morning, one pound oats and vetches mixed; at ten, half pound of hay, second quality; 1, half pound *sain foïn*; at 3, water; at 4, six sheaves oats half-threshed; and in the evening, twenty pounds winter straw for picking, to one hundred head of

sheep. In March, the regimen is the same, with the exception of watering at four, instead of three o'clock. In April, for coupling bucks; first, one pound *sain foïn*; at 8, water and straw again; at 11, half pound first quality hay; at 2, half pound ditto; at 4, water; at 6, five sheaves oats half-threshed, and twenty pounds summer straw, per one hundred head of sheep. For lambs, half pound hay, first quality; at 8, water in the stall; at 9, to each one hundred head, six half-measures of oats; at 11, half pound of *lucerne* (a grass resembling clover); at 2, one pound ditto; at 4, water; at half past 4, to each hundred head, six measures of oats; at half past 5, half pound of oats and vetches mixed. In May, the pasture season commences. At the hot hour of noon, they are led into the stalls, and are carefully sheltered from the sun, and in wet weather, cut chaff is given, with *lucerne*. In November the stall feeding commences, as has been described.—The climate is not as hot in summer in Silesia as here. The Arch Duke of Austria, viceroy of Hungary, had one of the finest flocks of Merino sheep in Europe. His shepherds or superintendents are all educated at the agricultural schools, and conduct every thing in the most perfect and scientific manner. The wool of his sheep is not the first but of the middling fine quality. He has obtained some of the finest results of breeding—results not before obtained. Saxony formerly had the highest reputation, and a great call had been made on Saxony for sheep for breeding, but she had sold her worst sheep and kept the best for herself. In the establishment of Hungary the wool in 1838 sold at 75 cents per pound. The wool is of unusual thickness. Great regard is had to the purity of the race. The perfect heads are kept for breeding. Tables are kept in which the father and mother are registered, with specimens of their wool, and their offspring are also registered. The rams and ewes are not permitted to couple until the age of two years and a half, and this takes place in July and August. They are allotted to each other according to their fitness to

improve the breed; three rams are allowed to one hundred ewes. Some of the lands in Hungary resemble the prairies of the West, but they are too low. In the low lands the loss of lambs is twenty per cent., but in the higher it is but two per cent. on this estate of the Viceroy. The ewes with lambs are placed by themselves in the nurseries; the lambs born within three days of each other, classed in separate apartments, and are carefully watched. At the end of twelve or fourteen days the lambs are separated twice a day from the ewes, and are fed on clover and hay to accustom them to their future fare. This saves the ewes. At the end of four weeks they are allowed to be but a short time with the ewes.

The fine wool of Germany is sold in England, and Germany obtains a coarser kind from Hungary. Germany needs all her own wool. In Europe they say America cannot injure them because they raise finer wool. Mr. Fleischmann said that the best wool adapted to this country was the middling quality.* The best breed for this climate would be the offspring of the Leicester ewes and Merino bucks. The length of the wool would be about two inches. The excellence of wool, he said, consisted in a great degree in the evenness and regularity of the curves of the fibre. If the curve be uneven the manufacturers cannot work it up so well. The Merino wool from the Western prairies, he said, looked sickly.

* The Tribune's report of this portion of Mr. Fleischmann's remarks is as follows:

The great question, said Mr. F., with which he had come among us was to find the kind of wool proper to be raised in this country. The Europeans now think that American wool can never attain a sufficient degree of fineness to compete successfully with theirs. But we have enterprise enough, and all that is needed is to ascertain the very best breed of sheep and in a short time we can produce wool of fully as good quality as any of the European varieties.

In Europe, a cross of the Leicester and Merino produces a staple of about two inches in length and very fine. In regard to the diseases of sheep, the rot is one of the most annoying. Lameness and lung-worms are the diseases of lambs, and if not speedily remedied, will soon destroy them.

In Germany, the shepherds or superintendents of flocks were brought up in agricultural schools. This was the case with all employed, from the highest to the lowest. He had himself been four years in an agricultural school, and had had for eight years charge of an agricultural district. Agriculture in these schools is taught in great perfection. The monarchs were the first to establish these schools, while the republicans in this country had been behind. In the primary schools in Germany, the pupils read and write of agriculture, and at their play cultivate vegetables. At the age of twelve or fourteen the best boys are sent to the agricultural school, and the graduates finish their education in the agricultural colleges. In the agricultural schools they do not teach science, but practice, not a part, but the whole of the practice—every part of the economy of a farm—so that they can put every part of the machinery together. The study is conducted with a view to the highest and most lasting profit, so that when the father dies he will leave his farm in the best condition to his son. In the examinations the pupils are not asked questions concerning ammonia or oxygen, but they are taken into the field, the soil is dug up, and they are asked what is the quality of the soil and subsoil, and what is the tillage required for the greatest and most lasting profit. They are examined in regard to the particulars of the household or economy of the farm—what they would do with a particular farm of three hundred acres, for example—what would be the best rotation of crops for that individual farm—how it should be manured—how many oxen and horses would be required, and how many hands to work it. Mr. Fleischmann said he wished the people of this country could witness these schools and appreciate their importance. If Congress would appropriate but \$100,000 for practical lectures for six months, it would produce great good—it would impart a good deal of practical information, and awaken a love of the science of agriculture.

The Chairman remarked that the Ame-

rican Institute was about to establish an Agricultural College, and would be gratified in receiving the counsel of Mr. Fleischmann, who was invited to accompany the committee to view the selection about to be made for the site of the contemplated school, and to give his opinion of its eligibility. The Chairman complimented in the highest manner for the very valuable remarks made by him, and tendered to him the thanks of the Club.

Mr. Hall continued in his remarks, that wool would become one of the great staples of this country, and that the care and attention given to sheep in Germany was the cause of the superiority of their wool. He also gave an account of his sending to this country from Spain in 1809, the Merino sheep, in answer to a request in a letter of Mr. Jefferson's. He said there were about 20,000,000 sheep in the United States, and but few unmixed flocks. He hoped the remarks of Mr. Fleischmann would be widely circulated and followed. The contemplated Agricultural College was all important, and if the moneyed men would not take hold of it, let an appeal be made to farmers, the bone and sinew of the land.

GYPSUM.

How does gypsum act? This is an inquiry which has often been made, and which is answered in various ways, even by the learned. True science can alone rationally direct the practical farmer.—“All else,” observes an erudite author, “is mere experiment—hazardous, expensive and conjectural.” The beneficial effects of gypsum, or plaster of Paris, on growing crops, is to be referred exclusively to the power it possesses of fixing ammonia, and holding it for the gradual use or progressive appropriation of plants. It has been correctly demonstrated by the most careful and accurate scientific experiments, that one hundred pounds of gypsum will fix as much ammonia in the soil, as *six thousand two hundred and fifty pounds of horses' excrement* would impart to it.—Ammonia is always present in the atmos-

phere, and hence the beneficial effects of this mineral, which absorbs and fixes it so as to render it available to the growing crop.—*Maine Farmer.*

For the Southern Planter.

WASTE LANDS.

Mr. Editor,—An old and esteemed friend of mine, as I judge from his initials and place of residence, in an article in your February number for 1846, speaking of waste land, (*i. e.*, land given up to enrich itself in pines,) remarks that “an article showing us the cheapest method of improving such lands would do much to raise the drooping prices of Virginia farms.” Without pretending to settle that question, I beg leave to suggest a plan which I have followed for sometime, and which is the cheapest and most effectual that has come to my knowledge.

In order to improve a piece of land we must furnish the soil with the materials needed in the composition of whatever crop we may wish to raise from it. Now the land in question needs the material of every kind of crop, save for poverty grass, running briars and broomstraw,—these being the only crops which can now be obtained from it. If left to itself, after a while, pines will make their appearance on it; then other kinds of trees; and thus, in process of time it will doubtless return to its original fertility. But if we are unwilling to wait for this slow progress, the only way we have to make it good for anything is to manure it. And as the soil now needs the materials for every kind of crop useful to man, it is plain that no partial manuring will bring it to the proper state. But to place upon Virginia land a plentiful supply of rich and varied manure will in most cases cost us more than the worth of the land after enriching it. Labor is too dear, and market is too far, and lands already rich may be purchased for a sum less than would be required to enrich our waste lands in many modes which I can name. To make manuring profitable, we must find

what is the most judicious and cheapest application.

Now the expense is twofold; the expense of collecting the original materials and of hauling them to the spot where the manure is to be prepared; and then the expense of hauling the manure to the ground to be manured.

In common practice, the most convenient locality for feeding stock is selected for the farm pen, without regard either to facility in gathering litter to it in the fall or hauling it in spring to its destination. Of all the manures usually employed in our middle country there are none which, in the labor of hauling, bear any proportion to that part of the manure consisting of vegetable matter. That management which diminishes the hauling of vegetable matter by nearly one-half must be worthy of consideration.

For some years I have adopted the following plan. To avoid double hauling, I have carried on the ground which I designed to improve all such litter as needed no trampling, viz: leaves—both oak and pine—straw, muddy grass and weeds from marshy places liable to inundation, and indeed, nearly all vegetable matters commonly used to make manure, except cornstalks. These I have placed in circular heaps fifteen or twenty feet in diameter, at convenient distances for spreading, and covered them over with a coat of animal manure, sprinkling on the heaps gypsum or common salt, and sometimes both, to fix the ammonia. I have let them lie, before turning, until there has been falling weather enough to wash the soluble parts of the animal manure into the litter below. Towards the spring I put all the ashes I can raise, over the heaps after turning them. After ten days of warm weather in the spring, such heaps are sufficiently rotted for any common purpose. I think that in quality they have this advantage. The large quantity of vegetable matter in proportion to the other materials, causes the fermentation to progress so moderately as to prevent that partial combustion, called by the Scotch farmers "*fire-fanging*," which

is evinced by the extreme lightness and the mouldiness of the manure.

I should violate the brevity, which you very properly require, were I to extend my remarks much farther on this subject. Permit me, in summing up what I consider to be the advantages of this plan, to state, that it lessens greatly, as I have before said, the hauling of vegetable matter—much the most bulky and ponderous ingredient of our manures; that, instead of *ruffling*, as it is humorously termed in this neighborhood, along the avenue to the house, it enables one to improve lands at a distance from the homestead, near the woods or other spots abounding in litter; that, instead of distributing the different kinds of manure on different spots of land, without regard to system, it enables the farmer, though ignorant of chemistry, to scatter equally over his land—*if not every kind of food for plants*, a very considerable variety—by applying a little of the less bulky but more stimulating kinds, upon each one of his vegetable heaps; and lastly, that the manure, on account of the slow process of fermentation, when thus made, is better.

It has been the fashion for some years, in this region, to aim at enriching poor land by turning under green crops; and much money has been wasted in the purchase of clover and other grass seed. I consider it just as useless and as great a waste of labor and money to attempt the cultivation of green crops on dead land as it would be to put them in tobacco, corn or wheat. We must, at least, look at the naked, bald truth, in relation to such lands—take the bull by the horns—and enrich them by the main force of manuring. When we get them up to *clover-heart* we may keep them rich by turning under green crops. When we have no more dead lands to enrich with leaves we may very well apply them as top-dressing to young grass, as recommended by an able writer, signing "R.," in the "*Enquirer*," in the summer of 1845, and since re-published in your "*Planter*." That article or any thing else on agriculture, written by "R.," can hardly be read too often.

Before closing, it may be proper for me to state that my cart employed, during winter, in hauling leaves, takes out a load of animal manure, every morning, for top-dressing the leaf piles, and in the evening brings in a load of leaves for littering the stables.

I will also state that I never could do much in the business of making manure, until I devoted to that purpose a cart, team and hands, during the winter and part of the fall and spring.

Most respectfully, &c.

W. S. M.

Cumberland.

TO DESTROY THE CURCULIO.

A gentleman of this city informs us that a lady of his acquaintance has for several years past practised hanging one or more bottles, filled with sweetened water or the like, among the branches of her plum trees, and the result has been an abundant supply of both curculios and plums. The curculios are caught in the bottle and the plums left to ripen without suffering from the curculio's usual depredations. Some little attention is necessary to note when the bottles get filled, and then of course they must be emptied and re-fill afresh.

The gentleman states that this course has been fully successful; resulting in abundant crops from trees so managed, while others around had their fruit entirely destroyed.

The remedy, as stated, is a simple one, and so easily adopted that if in other cases it should not succeed its expense will be very trifling.—*Selected.*

CULTURE OF TURNIPS.

It should be remembered that it is not too late for sowing turnips. The Swedish turnip (*ruta бага*) should be sown, if practicable, as early as the middle of June, but the 20th or 25th of the month will answer, if they cannot be got in sooner. The yellow Aberdeen is a kind which

requires nearly as long a season as the *ruta бага*. The common flat turnip grows much quicker than the kinds before mentioned. It will produce a good crop, on tolerable rich land, sown as late as the 25th of July or the first of August. Ground which has produced a crop of hay, rye, or wheat, may give a crop of flat turnips the same season. They are less nutritive than the other kinds, but are, notwithstanding, very useful in feeding stock during the beginning of winter; and from the convenience of cultivating them as an after crop, they are in many instances profitable. For late keeping, or feeding in the latter part of winter, the Aberdeens and Swedes are best.

A soil inclining to sand is most suitable for turnips. Compost of muck and barn yard dung, with a dressing of leached ashes, furnishes a good manure. The seed should be sown in drills. Two feet spaces between the drills will admit the use of a small harrow or cultivator in cultivating the crop. Flat turnips should be thinned to eight inches between the plants, and *ruta bagas* to twelve inches. If the ground is not very porous and dry, it will generally be preferable to form ridges on which to sow the crop. They may be made by a small plough drawn by one horse, or more readily with a double mouldboard plough. On stubble or sward ground, care should be taken in making the ridges, that the grass and weeds are not turned up. The ridges should be levelled by passing a roller over them before the seed is sown. A pound of seed to the acre, evenly distributed, as it may be by a good machine, is sufficient.

A dressing of plaster sown on the plants as soon as they are up, while they are wet with dew, will afford considerable protection against the turnip fly or *flea*, and will on many soils greatly hasten the growth of the crop. The weeds must be killed as soon as they appear. The scuffle hoe is the best hand tool for this purpose. It may be run rapidly along the ridges, close to the plants, and may take out almost every weed in the row without doing any damage. The spaces between the rows may be chiefly worked

by a harrow or cultivator—the former is preferable on light lands. The plants should not be much thinned till they have got into the fourth leaf, and appear to be pretty well out of the way of the fly.

LIME AROUND APPLE TREES.

The Editor of the *Maine Cultivator*, after recommending lime to the amount of a peck or half a bushel applied annually around peach trees, says:

An old farmer of much discrimination observed to us recently that he had made it a regular practice, for several years, to sow caustic lime around his apple trees in the spring. He had noticed that a tree standing in the immediate vicinity of his dwelling had all at once put forth with renewed energy, and he was at a loss, for some time, to define the cause. On inquiry, he found that a quantity of lime, which had accidentally been spilled, and rendered worthless by becoming mixed with the refuse on the stable floor, had been thrown at the foot of the tree, and to this, as the principal cause, he immediately assigned the reviviscence and renewed fructification of the tree. Taking the hint from this accident, he purchased twelve casks of lime, and applied half a bushel to each tree, and found that it produced immediate beneficial effects. Not the health of the trees only, but the quality of the fruit also, was greatly improved. We would advise our readers to make trial of this experiment and see whether it is deserving of the high recommendations it secures.

From the *Farmer and Mechanic*.

DIRECTIONS FOR MAKING A HAND-SOME CARPET.

Sir,—In your paper of April 1st, I noticed a letter from "Rosella," asking information about coloring, &c.; and the thought just entered my mind, that our sister Rosella, (whom we suppose is by this time married and pleasantly settled

in a neat white cottage of her own,) might be wishing to make a carpet for her best chamber, hall or dining room, and feeling willing to grant all the assistance in my power, to aid a young and inexperienced "farmer's wife," in the discharge of her arduous duties, I here present the following directions for making a cheap, handsome and durable carpet.

Take of the coarsest wool, (that which is often thrown away by improvident farmers will do,) cleanse it thoroughly, pick, and prepare for the machine, in the usual way. When carded, out of fifteen pounds of rolls spin as many runs of yarn; this will be sufficient, to make twenty-four yards of good broad carpeting. The method of spinning is to cross the band of the wheel and spin two rolls at a time instead of one in the usual manner. This makes a very strong yarn and saves the trouble of doubling and twisting. After the yarn is spun, great pains should be taken in washing, and rinsing it, so that it may take a good color.

For dark green take two runs of yarn and place in a common indigo dye, carefully wringing and shaking it at least three times in a day (to prevent spotting) until it becomes a good deep blue. Then rinse and dry it. Then prepare a strong yellow dye, made by boiling the leaves of the peach tree in soft water, for three or four hours at least; and after soaking the blue yarn in a strong alum water for five or six hours, place it in the yellow dye, frequently raising it to the air; continue this process for four hours, and you have a beautiful dark green which will never fade.

For light green; take the same amount of yarn and reverse the order of coloring, making it first a bright yellow, and then giving it but a light shade of blue. These two colors will make a beautiful shaded stripe of green.

For red, make a strong madder dye prepared in the following manner: Soak two and a half pounds of good madder in vinegar and water for twelve hours; then place it in a large brass kettle with at least two and a half pails of soft water. When boiled (but not boiling) dip in it

one and a half runs of yarn, (having been previously soaked in alum water for several hours,) and let it remain five or seven minutes, raising it two or three times to air. Then wring and carefully shake it over your dye kettle (or you will lose much of your madder,) after which rinse it in soft water and pour the water into the dye. This yarn will be almost as bright as scarlet and quite as beautiful in a carpet. Now place the dye where it will keep in a state of simmering, put in it two and a half runs of yarn prepared as the former, and color for three hours, and you have another shade of beautiful red. Remove this from the dye, and place in it one-half run more, and let it remain three or four hours; this will be a pale red color, and serves for the purpose of shading.

For pink, take one ounce of pulverized cochineal, tie in a linen bag, and place it in two quarts of soapsuds, (made with fine hard soap.) This will dye one-half run of yarn, which should be divided and a part dipped first, and remain a few minutes before the other is put in, to give a different shade. The whole to remain about two hours, with occasional airings.

Purple.—One run of yarn may be colored purple by boiling a handful of logwood in the remains of the madder dye, and adding the alum water. This will not fade.

Yellow and Black.—One run of yellow may be colored as directed for the light green. To this add three runs of yarn colored black, in a strong logwood dye set with blue vitriol, a half run of pale blue and the same of white, and you have the chain for a handsome carpet.

Eight pounds of cotton carpet filling will now be required to complete the whole, which can easily be dyed by throwing the remains of the different dyes into a large kettle and boiling the whole together. Care should be taken in the arrangement of the colors, and the web should be woven at least a yard wide.

We have just completed a carpet made after the foregoing directions, and although the expense (time and labor included) has been less than twelve dollars, we

would not now exchange it for any imported carpeting for which we should have to pay one dollar per yard.

MARY.

North Rochester, O., May, 1847.

DEAD ANIMALS.

At all seasons of the year dead animals are to be seen hung upon fences and trees; and especially is this the case in the spring. On every farm where sheep are kept, dead lambs are suspended in the beautiful, blooming and fruit-bearing orchards—how shocking?—to annoy the sight and smell, and waste the farmer's means. Dogs and cats, too, are frequently hoisted in view in the same annoying and disgusting manner. If horses, cattle, sheep or hogs die, they are drawn out of sight, but not out of smell, and are still sources of disgust. Why is all this? If the farmer be so unfortunate or so negligent as to lose an animal, should he be so wasteful as to permit the carcass to decay uselessly in the open air, to the great annoyance of his family and every passer-by? Does he not know that animal matter is the best and richest of manure? Animal matter contains every element that is necessary to grow every plant known. In it are phosphate and carbonate of lime, ammonia, carbon; in short, in the best form, all the essentials of vegetable growth. Its nutritive power is great, and if added to the compost heap, hastens fermentation, and adds greatly to the richness.

Whenever a fowl, cat, dog, sheep, pig, horse or cow dies, let the carcass be cut up, and the bones broken, and the whole added to the manure heap. The carcass of a single horse will turn loads of useless muck or peat into manure, richer than any ordinary barn yard dung. Why, then, suffer it to decay uselessly and annoyingly? It is true it is not lost, for the gases that taint the air are appropriated by plants; but the farmer who owned the animal, gets but a small portion of what should be all his own, why then will he waste the dead energies of the horse, when he has lost the living ones?

If our readers will heed what we say they will not suffer dead animals to annoy the eye, and disgust the nose hereafter. Bury them in the manure heap; add some lime to quicken the decay, and charcoal dust or plaster to absorb the gases, and much will be gained to the good appearance of the farm, the quality of the manure, and the quantity of the crops grown, and much to the purse of the farmer. If your neighbor be so improvident as to waste a dead animal, beg it of him, that it may not be detrimental to health, and useless to vegetation. Laws should be passed to compel the saving and use of the most powerful of fertilizers, when common sense and decency fail to do it.

Whenever it is desirable to hasten decay, and rapidly turn animal matter into manure, sulphuric acid may be used.—This would be too expensive (though the acid is cheap) for farm purposes, but may be employed for the garden, where expense is not so important. It is frequently desirable to have a rich manure in the garden, and it is not at hand. Animal matter put into sulphuric acid will in a few hours furnish it. Every house will supply much refuse animal matter. To this rats, mice, moles, feathers, hair, bones, horns, &c., may be added. If the garbage of a slaughter-house can be got, it should be. All these will soon be reduced to an available state, be inoffensive, and will add great fertility to the soil where used. The requisite quantity of acid may be ascertained by experiment—about ten or fifteen pounds is usually allowed for one hundred pounds of animal matter.

Albany Cultivator.

TILLING AMONG YOUNG TREES.

A correspondent tells us that he could not readily procure any litter to place around the trunks of his young trees, and that as he has planted the field where he set them with corn and potatoes, he thought litter would be in his way in tilling.

We think there might be a quantity

around each tree that would not interfere with the crop. But he should endeavor to keep his soil about his young trees as moist as possible whether he uses litter or not. Next to covering the earth with something to check evaporation and to keep the soil both moist and light, ploughing and stirring often through the summer will be found best. If you have the least doubt about the effect of ploughing and hoeing often, just try the plan, let the book-farmers say what they will.

It is not very easy to explain why the frequent moving of the soil, and that to a considerable depth, should have an effect precisely the reverse of what is observed when we often remove other materials and expose them to the air. Hay will dry twice as fast when we stir it and let the air in, as when we let it lie with once spreading over the ground. Litter of any kind, leaves, manures, will dry up fast in proportion to their exposure to the atmosphere.

But it is certain that all soils are so constituted that frequent stirring keeps them more moist than when they are allowed to lie still. We have known practical farmers to delay hoeing their corn in a dry time for fear they should render the soil more dry, to the injury of the harvest. They may have reasoned from what they had observed in regard to the stirring of other substances. Experiments on a very small scale will convince them that stirring the unswarded earth will not in a dry time, make it more dry.

If no litter has been placed about the trees, set this spring, keep the earth well tilled both for the sake of your trees and your harvest. When you plough among your trees you should always muffle the ends of the whiffle-tree to prevent galling or tearing off the bark. It is almost impossible to avoid it without this precaution.—*Massachusetts Ploughman.*

HARROWS.

Most harrows are poorly constructed in one respect; that is in having the teeth too near. Sometimes we find in a har-

row three or four feet square, sixteen or twenty teeth. Now what chance is there to get clear of stones and other substances that cannot be demolished at once? On rough lands such harrows are continually clogging and dragging along a mass of matter with very little effect as to pulverization. Would it not be far better to have less teeth, that they might operate well, and then go over the land oftener.

Boston Cultivator.

BED BUGS.

Who has been driven to his wit's end in a summer night by these little blood suckers? What housewife has not felt her patience exhausted by their persevering residence in her beds and furniture? The man who will find a means of subduing their insect army will be more truly a benefactor of the race than any conqueror of them all; and such a victory will be much more to our admiration than many recorded in history, however great and bloody they may be. The Editor of the Lancaster County Farmer thinks he has found a certain remedy for them in the use of quicksilver. His plan is, to beat a half an ounce of quicksilver with the white of one egg, until they are perfectly compounded. Then to wash the bedstead clean in cold water, and to anoint all the joints and crevices with the compound, which is to be put on with the feather end of a quill. Moreover, he advises us, if the first trial fail, and if the nocturnal pirates continue their career with unabated vigor, not to scold wife and daughter, but have the egg and quicksilver again laid on. He says, further, that he commenced these tactics about ten years ago, and has used them once every year during that time. In consequence whereof, although he cannot say he never saw a bug in his house during those ten years, he does say that he was very little troubled with them.

We know a remedy for bed bugs which is better than that just given, inasmuch as it is simpler in itself, easier to obtain, quicker in its operation, more cleanly in its nature, and far more certain in its effect. Take any

quantity of alcohol, small or great, as may suit your purpose, and dissolve in it as much corrosive sublimate as it will take up. This well applied once a year will completely rout out the bed bugs, however firmly in possession before. We once lived more than ten years in a house without ever seeing one. There we have the advantage of the Lancaster Farmer! Yet this very house was an old wooden building, which was so much infested with them before the application of our remedy, that even the cracks of the floors were full of them. But when an industrious lady, learned in the mysteries of housekeeping, moved into it, she at once deluged it in the liquor described; and the dynasty of bed bugs was at an end.

A single application, if plentiful and thorough, will effect their total abolition; but to keep the house clear of them, bedsteads, sofas, &c., should receive it once a year. The proper time for this annual ablution is in March. If there are any about the furniture then, they are lying in a torpid state, and they are then easily destroyed. A little later, and they will have been awakened by the approaching heat, and have layed their eggs. An application of it then only destroys the generation in being. In a short time the eggs which they have left will be hatched, and a few of the young may be found on inspection. If there is no immediate second application, these will soon lay more eggs, and the tribe will be greatly increased before the end of the season. So soon as the cool weather approaches, they retire from view, nestle in crevices, and go into a torpid state till next May. Therefore, either take them before May brings life and activity to them, or make a double application of the alcohol—one for the full grown generation, and the other for their newly hatched eggs. If either of these is done with care, a deliverance may be safely relied on.

FEEDING TURNIPS.

When milch cows are fed with turnips, the milk frequently has a disagreeable flavor. To eradicate the taste communicated by the turnips, different substances

have been recommended to be put in the milk, such as saltpetre, chloride of lime, &c. Mr. J. McD. McIntyre, of this city, who is in the habit of feeding his cows during winter with both turnips and brewers' grains, informs us that while both these articles are used, no unpleasant taste is given to the milk; but that if the grains are omitted, the flavor of the milk is affected by the turnips. His rule has been to feed each cow with about half a bushel of Swedish turnips, and half a bushel of grains per day, and it has repeatedly noticed that when the turnips are stopped the milk is considerably decreased in quantity, and the cows appear to be less healthy.—*Albany Cultivator*.

From the Massachusetts Ploughman.

CAN YOU ENRICH SOIL BY BURYING THE CROPS THAT GROW OUT OF IT?

Mr. Editor,—I have noticed in various agricultural papers, and I think frequently in yours, articles recommending the *turning in* of various crops for the purpose of enriching the land upon which they grow, but have never seen the *why and the wherefore* of these recommendations philosophically explained. It seems to me, however, that this course is useless, for three reasons, the first of which is, that if the richness which produced the first crop was originally contained in the soil, the turning in but returns to the earth what it had previously imparted, and consequently the labor is worse than lost, as it does not advantage the land itself, and destroys one season's productiveness.

2. If the qualities which rendered the crop to be turned in, thriving, was derived from the gases in the atmosphere, and not from the ground, then the gases alone are sufficient to mature the crop, however sterile and barren the land, and consequently the burying of a crop is but the loss of it, and the labor useless.

3. If the crop depend on the richness of the soil and gases, combined, then, it seems to me, that as the first crop contains

all that by turning in is to be hoped for the second crop, that the labor is not only useless but worse than useless, and entirely thrown away.

These thoughts have been suggested to my mind, and I have penned them down, that, if they are wrong, you may enlighten me on the subject, and not only me but a large proportion of the public, who, in adopting any new system are desirous of knowing the reasons which may be presented in its support.

A YOUNG FARMER.

Barre, May 25, 1847.

We assume it *as a fact* that land becomes enriched by the decay of the vegetation that sprang from it, because we see it with our natural eyes in various instances. We find that worn out land is recruited by suffering it to run to bushes and wood and timber, even though we take no pains to bury the leaves and the fallen limbs. After a few years we can cut off twenty cords of wood per acre, burn the brush, and obtain one or two crops of stout grain without applying any manure but what is obtained from the ashes.

We find also that by ploughing in one crop of grass, we enrich the land and obtain a better harvest than we do when no grass is on the ground—we can sow buckwheat in May, bury it in July, and then have a second crop for grain and stover to be carried to the barn; and this crop will be much heavier in consequence of burying the first.

As to the "why and wherefore," every one is at liberty to assign such reasons as suit him, though he may not deny the facts. If vegetation were sustained by soil alone, and if the roots were the only means by which plants obtain their food, it might be difficult to assign a reason why land is enriched by burying the plants that took all their living out of the land. But it is well known that plants obtain a very large proportion of their substance from the atmosphere; and by burying these plants, the land on which they grew is a gainer; though it may be at the expense of adjoining lands over which the atmosphere has moved.

You manure one field from the barn yard, and much of the effluvia may pass off to your neighbor's field. You *burn up* the brush on your own cleared land, and you lose something in the smoke that is driven off. Some of the soot, the ashes, and the salts escape to help an adjoining lot. If you burn the twenty cords of wood, you do not find much of the same in the ashes—not one pound in a hundred.

What has become of your twenty cords of wood? It is "burnt up." But nothing is destroyed. You cannot show that *matter* is ever destroyed; it only changes its form; and the smoke of your wood and your brush has gone to impregnate growing vegetables, entering through the leaf, or falling down, and in due time enriching the roots of growing plants.

STIR THE GROUND.

It is a stupid error to suppose that stirring the earth around plants will render it more dry in a dry time. Earth that is often moved imbibes more readily moisture from the air and from the subsoil than earth that is suffered to lie at rest. Other substances are differently affected. Hay dries the faster for stirring, so does manure, as well as all combustible substances, and all vegetable matter. We need not now pester our readers with any philosophical reasons explanatory. But we state it as a positive fact founded on long experience; and if any one doubts he can quite easily satisfy himself by making trial on a small patch of his garden.

But we are farther told that passing a plough or a cultivator along between rows of corn, &c., when the surface is dry, will expose the mangled roots to the hot sun and leave the plants to wither for want of their usual means to draw moisture from the subsoil. So also we are met with the same objection when we recommend ploughing in orchards among the roots of trees, cutting them off and rendering them useless.

But just cast your eyes upon fields that have been regularly tilled through the

summer, and compare the corn and the trees growing there, with corn and trees that have been considered too delicate to be subjected to this rough usage; and you cannot fail to see the difference; the stirred earth will be moist while the unstirred will be dry.

And this is by no means the only advantage of stirring the surface of the earth in a dry summer. Weeds spring up in all cases where manure has been applied, and weeds are continually sucking and dispersing to the winds large quantities of moisture that would otherwise be left to be taken by cultivated plants.

Stir the ground then, dry or wet; bury the weeds or cut them up and let your corn have all that the soil can spare.—He who neglects tilling his corn on the plea that he shall injure the roots must be extremely ignorant or extremely lazy—he may be both.

THE SLABBERS.

This is a well known and troublesome disease of the season among horses and milch cows. Some call it salivation; and some of its effects very strongly resemble those of calomel on the human system. The glands which secrete saliva become diseased, and the horse pours forth quantities of it from the mouth. This undue secretion of saliva affects his general health, and decreases his flesh, his strength and his spirits. It is seldom regarded as anything serious, because in most cases, it is easily removed by keeping the horse on dry food, and because of itself it is not dangerous. But if it runs on, its consequences will be found to be extremely serious. The horse will continue to fall off in appearance and in power. He falls into the *scours*, and then into the *yellow water*, of which he dies. Nearly all the cases of these diseases commence with it, and it is thus the true cause of an immense loss from the aggregate wealth of the country, and of a great deal of misery to the most useful of domestic animals. The slabbing is merely the beginning of troubles.

In the cow the disease produces still worse effects. The slabbing is not nearly so abun-

dant as in the horse, but it seems to be attended by a greater loss of energy, and by some degree of fever. It appears to vitiate the blood, and it debases the quality and diminishes the quantity of the milk—not more than half the usual quantity being sometimes yielded, and the loss in purity and richness being still greater. Little butter can be obtained from it, and that little has more the appearance and flavor of hogs lard than butter. All this takes place, too, in the very season when more and better butter is expected than at any other. The disease then soon runs into a kind of flux similar to the *scours* in the horse, and into that species of overflow of gall known as the *yellow water*, which generally terminates in death.

All these are generally accounted for, by heat of the weather, want of rain, too much rain, bad air, presence of the dog star, or changes of the moon, &c. &c. &c. We will venture to say, that in nearly every case of these diseases, if examination be made, it will be found beginning with a slabbering which had not been duly attended to. Yet the slabbers are easily checked, and their evil consequences avoided, at almost any period of the disease, before the *scours* have set in. One or two feeds of bran will frequently give relief; and even the worse cases may be cured by putting the animal in the stable, feeding wholly on dry food, and entirely shutting up from pasturage. In some parts of the country the laboring horses are shut up the whole of the slabber season, to avoid the effects of the disease. Wheat bran and dry fodder seem to be the most certain and effectual of all remedies for it. As we before said, in the disease itself there is nothing very serious, further than the weakening of the horse's strength, and diminution of the cow's milk for the time being. Its real injuries are in the diseases which it brings on, and a great loss results from it, because of the notion people have of its trifling character.

As to what causes the slabbers there is much difference of opinion. Some think it is caused by the *Canada thistle*; some attribute it to the *lobelia*, and some to the spur found on wire grass. Some believe it to be caused by the spider webs found on the grass and weeds

in great plenty at this season of the year. Many more think that the second growth of clover, called *Rowen*, is the cause; and we ourselves have observed many cases of the slabbers in horses which have made a meal of this grass. All agree, however, that the cause is to be sought for in the pasturage of the animal; that it is some species of grass which he finds when allowed to go at large. We have lately received a pamphlet which names an herb different from any which we recollect to have seen brought forward as a cause. The author, a Mr. John Forman, of Western New York, states that after long and careful observation, he is convinced that the disease is produced by a plant known among botanists as the *DIGITARIA SANGUINALIS*, and which being without a common name, he christens the "slabber grass." It is a species of the grass which dogs eat when sick for the purpose of procuring a vomit, and according to Mr. Forman, this very species is sometimes used by them. It will sometimes rise from three to thirty inches in height; but when it has full scope, will branch out on the ground in every direction like garden pursley. The leaf is stoutly coated with fuze, almost beardy.

This grass has been observed to be most plentiful on pastures from which a crop of clover has been taken; and this may account for the fact that horses are so frequently attacked with the slabbers after pasturing on the rowen. It is very injurious to other animals besides the horse and cow. Upon geese, according to Mr. Forman, it acts as a powerful poison and speedily "*scours* them out of the world," to use his phrase. The hog cannot be prevailed on to touch it.

To destroy this grass it is only necessary to keep the ground heavily covered with herdsgrass, or anything else that will furnish a thick and strong sward. Like Indian corn it will not flourish in the shade, and by herdsgrass, &c., it is easily smothered.

SCAB IN SHEEP.

Sheep, as soon as possible after shearing, should be let roam at large on newly burnt woodland. It is an almost certain

and speedy remedy for the scab, and also a preventive for the fly that produces the worm in the head, for the properties connected with burnt woods are very offensive to flies, and they always avoid coming in contact with its effects; and if sheep have free access to a fresh piece of burnt woods during the pasturing season, they are sure to make it their place of rest and lodging: it promotes greater quietness, prevents disease, and does no damage to the wool; and they will invariably go half a mile or more from their pasture ground to get the benefit of burnt woods to rest and shade in, when the temperature of the weather is too hot for grazing; and their condition in the fall will be much better than others deprived of such grateful retreats.—*Southern Cultivator*.

HINTS TO FARMERS.

The farmer's life is shunned by many because it seems one of mindless drudgery. It ought not so to be. If our farmers would study and reflect more, they might do less hard labor, and yet accomplish more in the course of a year. Ten hours' work in summer, and eight in winter, ought, with good management, to give any man a good living. He who works so hard that he cannot read or reflect after the labors of the day are over, because of fatigue, does not plan wisely. Let no man shun work when work is to be done; delve, delve, forever, is not the end of man's life. The farmer's evenings should be devoted to mental acquirement and rational enjoyment. To sup and tumble into bed is a hog's fashion, and highly injurious to health. But let a farmer have about him the choicest works of his own auxiliary avocations; let these form the subject of study and conversations at least two evenings in a week, while the newspaper, the newest and oldest volume, each have their allotted seasons. Two or three dollars, contributed by each family in a neighborhood or district, would go a great way in the purchase of standard books at modern prices. These are but hints which each reader will modify

as his judgment shall suggest. I plead only for the essential thing of making home pleasant, and its hours of relaxation, hours of instruction also.

H. GREELY.

For the Southern Planter.

GATES.

Mr. Editor,—Having noticed in a late number of your valuable paper, some directions for making a simple farm gate, with a drawing thereof, I wish to make a few remarks upon the suggestions there thrown out.

The writer proposes to make this gate of white oak plank. Now my experience tells me that this is the very worst material that can be used for such a purpose. Its tendency to warp is so great, that although you season and keep it in press for years, so soon as it is worked up and exposed to the sun, it bends and twists out of all shape. Now it is absolutely necessary that a gate should hang perpendicularly, to shut close, to be of any use; but if it be made of white oak, it will infallibly hang all awry after a very short time, and probably only touch the latch post at one point.

In the next place, the writer says his gate may be made by any farm hand who knows the use of the saw and gimlet. This is true. But if the small additional trouble be taken to make the gate with mortises, it will last just three times as long as that which he recommends. For the nails used to hold together the unmortised planks on his plan, soon cause them to split. The writer names it as one of the advantages of his gate, that it has no mortises to rot. But if he will choose locust or walnut for his posts and bars, I will insure their not rotting in his life time. I would further suggest paint instead of whitewashing for the gate.

HUTTINS FIELD.

White Post, Clarke Co., June 15th.

We second this last suggestion of our correspondent. We wish our readers to recollect that *paint upon wood work costs nothing*. So

say the Dutch, a people more given to counting expenditure than the Yankees themselves. The expense of a yearly coat upon plank is far more than saved by the superior durability which is given to the wood. A man who uses paint every year on his house, &c., will have it to rebuild only once in some sixty or seventy years; while he who does not use it will have to rebuild, in most cases, twice in that time. There is such a thing as false economy.

CLOVER HAY.

If, owing to the backwardness of the season, you have been prevented in cutting your clover, and have that still to do, we would advise you to cure it by cocking it so soon as it becomes wilted. By curing it in cocks you prevent loss from the falling off of the leaves, and retain that delightful fragrance which is so acceptable to stock. In stacking it away sprinkle on every ton of it a peck of salt. The salt will prevent its firing and becoming mouldy, besides it will enable you to stack it away much earlier than if it be not salted.—*Selected.*

TO SOFTEN OLD PUTTY.

Put soap on the putty for a short time. Panes of glass may easily be removed by the application of soft soap for a few hours, however hard the putty has become.

From the Albany Cultivator.

BLIGHT IN PEAR TREES CURED.

Having noticed several articles in the Cultivator respecting the fire-blight in pear trees, I will relate my treatment of a tree in my garden of about two and a half inches in diameter, during last summer. It was about the last of June that I first noticed the disease by the dropping of the leaves on one of the limbs, in about three days after the leaves turned black, which made me fear that I should lose

my tree. I immediately examined Mr. Downing's work, and there found the only remedy was the cutting off the affected part, which I did. This stopped the disease as far as the limb was concerned; but still the whole tree began to droop, which led me to examine farther, when I found the bark on the body of the tree to be entirely dead, and all cracked open for about four feet from the roots upwards. I then immediately prepared some ordinary grafting salve which I melted over a slow fire, and kept it warm till I whitened the whole of the dead bark off of the tree to the naked wood. I then applied two coats of said salve on the tree with a brush, dug about the roots, and left it. In about two weeks after, my tree revived; the fruit, which had not grown for two weeks, commenced growing, and ripened well, except it was most of it stung or indented on one side. The pears were Virgalieu. My tree now has an entire new bark, and is as full of blossoms as can be, and in perfect health, at No. 48 Howard street.

A. VAN VOAST.

Albany, May 14, 1847.

For the Southern Planter.

HOW TO DRILL WHEAT.

Take a single shovel plough with a narrow plate and furrow off your land as close as you can, taking care not to run so close as to fill up those that you have made. A rain will cause a slight crust to form, which will make all the wheat roll into the furrows. Lay off and seed across your furrows, and your wheat will be completely drilled. Previous to furrowing the land should be reduced to a level by harrowing.

The Dutch or Pennsylvania Way of Drilling.—Harrow down the land until it is smooth. Then take a large harrow which is filled with good strong cultivator teeth, go over the land just as you would with a harrow, wait until after a rain, then sow and barrow in across the drills as much as possible. Wheat put in in either of the above ways will be found to resist

the action of the frost better than any other. And it will grow off sooner in the spring. In fact, the action of the frost seems to feed the plants, by causing the earth to run into the furrows. Some contend that ploughing in wheat answers the purpose. If such persons will try it *once or twice*, they will be convinced that there is a very great difference; furrowing with a single shovel plough will often answer the purpose of re-fallowing.

Very respectfully, yours, &c.

I. I. HITE.

Amherst, June 12, 1847.

PRODUCTIVE ORCHARD.

A correspondent of the *Prairie Farmer*, says that an orchard of three hundred apple trees, owned by Elijah Capps, of Fulton County, Illinois, nineteen or twenty years old from the seed, produces now from twenty to forty bushels per tree.—Much of this success may doubtless be ascribed to the new and fertile soil of that country; but it might be nearly approximated further east, by deep, rich, highly manured soil, and constant and mellow cultivation.

CULTIVATION OF ONIONS.

John W. Proctor, Esq., of Massachusetts, states in the *Boston Cultivator*, that "there are three individuals in his neighborhood, each of whom produces annually from two thousand to three thousand bushels of onions. They, in some instances, rent the land at from six to ten dollars per acre, and the average product is three hundred bushels per acre. He says the onions, when ready for market, are worth one hundred dollars more than the rent of the land and the cost of the manure, leaving this sum as the compensation of the labor applied." He does not give the price of the onions per bushel, but we have lately seen it stated that the average in that neighborhood is thirty-seven and a half cents per bushel. The same land is continued in onions several

years in succession. Mr. P. states that some lots have borne this crop every year for ten years, without any depreciation in yield. "Muscle-bed" and leached ashes are much used for manure. Great pains are taken in the preparation of the soil, particularly to have the top well pulverized. The seed is sown with great accuracy by a machine, and strict attention is given to keeping the crop clear of weeds. It is calculated that one man and two boys of the ages of twelve to sixteen years will manage ten acres. Mr. P. says he knows of several individuals who commenced this business at the age of twenty-one, and have pursued it for a dozen years or more, have brought up respectable families, and are now worth comfortable estates.

SCARE CROWS.

It is very provoking sometimes to witness the havoc the *black pigeons* will make in a corn field in a few hours. Nor do we blame our Legislature for declaring them outlaws and setting a price upon their sooty heads. But we have really thought while riding through some corn fields in Virginia, that the farmers who are possessed of so little ingenuity as to be unable to construct a tolerable scare crow are not entitled to the protection of the laws any more than the crows. We see there are abundance of things at which these feathered *niggers* are expected to be frightened, but which will never bring upon their makers the accusation of violating the second commandment, as they are seldom in the image or likeness of anything in heaven or in the earth, or in the waters under the earth. The most popular fashion is a pole ten feet high with an old hat on the top, and a ragged great coat strung about it, clearly designed to show the crows that the image has not only no "bowels of compassion," but also no ribs, bones nor muscles nor any other thing needful for the acting as police officers for black thieves.

If it requires too much trouble to make an image of a man, with gun, &c., sufficiently like to be taken for a guardian plough boy, partially cover the pole and great coat affair,

so that some doubt may be left on the mind of your marauder as to what it really is. Says the Massachusetts Ploughman, crows are expected to know *something*, else it would be cruel in legislatures to punish them. Crows know B from broomstick, and a post from a pair of legs. If you intend your sentry to stand out openly he must have all the parts and appearances of an natural gunner, or the crows will see the fraud and laugh in your face. But you need not be particular in the shape of your image if you will let him be partially concealed. Put some boughs over him. Make a slight bush shelter for him to hide in, and the outward appearances will be such that the boldest warriors will shy at it as an ambuscade.

PRESERVING BACON.

I observe it is recommended to dust bacon with black pepper before putting up to smoke. We rub the fleshy parts of our hams with red pepper before salting—about a tea-spoonful to each ham, and for the last twenty years have not found it necessary to use any more care to keep our hams from flies than we do our bread.—*Selected.*

From the Farmers' Cabinet.

CULTIVATION OF CRANBERRIES.

The attention of the public having been called to the culture of this delicious fruit, and Mr. Gardner, of Massachusetts, having produced three hundred and twenty bushels to the acre, on upland soil, I proceed to give his mode of cultivation, as follows: "I select a piece of cold, wet land that will keep moist through the year—remove the top soil to the depth of two inches; this prevents all grass or weeds from growing, and the plant will require no cultivation after they are set out. After the top was removed, I harrowed the ground smooth and marked it out in drills, eighteen inches apart, and set in the plants four inches apart. Some I set out on sods fourteen inches square,

placed in holes a little below the surface. They all flourished far beyond my expectation: the first year they put forth runners three feet long, and every vine was loaded with fruit. The plants can be set out from September to December, and from April to the last of June.

Yours, &c.

B. G. BOSWELL.

TEA.

The following account of the method in which tea is gathered and dried for market will probably be interesting to some of our readers. We believe there is more than one subscriber to the Planter who raises a small quantity of it, and it is certain that as much as could be needed might be raised south of the Potomac if the method of cultivating it was generally known, and if there were not so many crops which require less labor and care to be profitable to us. This account is an extract from the letter of a Mrs. Culbertson, wife of one of the missionaries in China. As the writer who publishes it remarks, it is not only the most full and definite account we have seen, but it corrects many mistakes that have hitherto prevailed about it; such as that tea is a narcotic when lately gathered so powerful that the Chinese do not venture to touch it for twelve months after it is taken from the bush, that the newly gathered leaves are subjected to steam, that they are dried on copper vessels, &c. &c.

On the side of the hill, we found women and children picking tea leaves from the shrub, which is as high as ordinary currant-bushes. [Perhaps I am mistaken here; Mr. C. thinks they were not over two feet high.] They are set a few feet from each other, and the leaves in form and size are very much like those of a winter-green. A little farther on, we passed through a village of a thousand inhabitants, where we saw large quantities of tea drying on mats spread on the ground.

But I am forgetting to tell you what I presume will be more interesting to you

than anything else I can write about—the process of curing the tea. It is very simple, and the idea which some of you “outside barbarians” entertain, that tea is dried on *copper* is entirely incorrect. It is mostly picked from the bushes by women and children, into baskets, one person being able to pick about thirty “cattis” (or forty pounds) in a day. It is then spread on mats, and dried an hour or more in the sun, previously, however, having some of the juice squeezed out, and the leaves somewhat curled, by rubbing them with the hand over a rough kind of matting, which lets the juice run off. After drying in the sun, it is ready to be “fired,” which is an operation we watched some time, with much interest. A dozen or more pounds are put into a kind of kettle, resembling a potash kettle, except that it is low on the front side, and runs up some two feet behind. A man stands in front, and keeps the tea constantly stirring while being heated, which he accomplishes by thrusting his arms as high as his elbows under the hot tea, and giving it a toss upwards against the back of the kettle. This operation is kept up two or three hours, by two men, who constantly relieve each other. When this process is finished, it is ready for market, but tea that is intended for exportation is again fired slightly by the tea merchants before being shipped. We drank some that was growing on the bushes the day before, and might have obtained some that had been gathered and cured that day. This tea is of a fine quality, and is known as the “Tau-bah-san” tea, from the name of the mountain on which it grows. Some of the finest of it is prepared for the Emperor. It is the *green tea* of which I have been writing. The *black*, it may be, is subjected to a process in some respects different.

YIELD OF WHEAT FROM A SINGLE HEAD.

Mr. Colman mentions that Mr. Jonas, of Cambridgeshire, England, in 1838, dibbled in 50 kernels, the produce of one

ear, 30 of which only grew. The product was $14\frac{3}{4}$ ounces. This being sown in 1839 produced $1\frac{1}{2}$ bushels; which was sown in 1840, and produced 45 bushels, and this in 1841 produced 537 bushels. He also mentions a case of remarkable increase from eighteen ears in four years. The first produce of these ears produced $7\frac{1}{2}$ bushels, the second $108\frac{1}{2}$ bushels, and the third 1,868 bushels.

From the Albany Cultivator.

SOWING FLOWER SEEDS.

Complaints are very frequent of failure in the vegetation of flower seeds, and the seedsmen often receive abundant censure, when the fault is in the mode of sowing. Minute or rare seeds, if merely buried beneath common soil, can hardly be expected to grow. An experienced cultivator says, “their failure to grow in common gardens, I should scarcely consider as any proof that the seeds were bad.”

“But,” asks the inquirer, “if seeds are *not* to be buried beneath the soil, in what possible way are they to be treated?” Follow nature—not servilely, but rationally—imitate her successful operations, not her failures—adopt such points of treatment as are essential,—without blindly copying every thing, as the Chinese tailor did, when he made a new coat with a patch on the sleeve from the worn pattern given him.

Seeds which drop in the forest are never covered deeply, but they are deposited on the surface of a bed of fine mould, and afterwards covered with a very thin coat of partially decayed vegetable matter.—Flower seeds should have only a thin sprinkling of fine mould upon them. The seeds in the forest are kept moist by a shade. Fine seeds must be protected from the scorching rays of the sun, till they have obtained sufficient foothold.

A friend is very successful with such seeds, by screening them, after sown, with small boxes open at the bottom and top, across which a piece of fine muslin is stretched, like a sieve. Light is thus ad-

mitted, the drying of winds is prevented, the hot solar rays are much softened, and insects excluded. This treatment will ensure success with many delicate seeds where ordinary modes would fail.

The watering of common soils, by rain or by artificial means, soon forms a thin crust on the surface, unless such soils are of the lightest character, and delicate young plants cannot push through it.—The difficulty is obviated by the substitution of peat or fine mould, sifted over the surface when the seeds are sown.

Dr. Lindley says, "When the acorn falls, it has no power of wriggling into a hole in the ground, and when the chickweed scatters its tiny seeds, they lie and grow where they fall." This eminent horticulturist describes a method which can hardly fail with any seeds of temperate climates, which retain vitality. First, provide a good soil, fine and dry; smooth the surface; sift over it a coat of fine mould or peat if the seeds are very small; or mix them with the same material before sowing, if excessively minute. Then press the whole surface gently and evenly. Next sprinkle over the surface some coarse moss, previously soaked in boiling water to kill insects or eggs, and with the superabundant water pressed out. Cover the whole with a common garden pot, and lay a tile on the hole. The seeds are then planted—the moss answering the purpose of the scattered forest leaves in nature, and the pot supplying the shade.

Then, judging from a daily inspection by looking under the pot and moss coating,—open the hole in the pot when the seeds *begin* to grow; the next day, perhaps, remove a part of the moss; the next, raise the pot by a stone under its edge; then gradually raise the pot higher, remove the rest of the moss, and finally take the pot away.

One caution should be added for those who plant large seeds encased in a dry shell, as for instance, the horse-chestnut. In the wild state they drop as soon as ripe into moist mould where they remain till germination commences. If packed up and kept dry a few weeks, they will scarcely ever grow. No difficulty of this

kind will, however, occur if they are packed in moderately moist muck from the woods as soon as mature.

T.

THE CROPS.

In a country of such immense extent of territory, and such a variety of climate, a very poor judgment of the average of its whole crop can be formed from any part, and very different accounts are now received from different parts of it. In the beginning of this season, the prospects were gloomy in every portion of the United States. But during the last month or six weeks the weather has been quite favorable, and in most of the States there will be an average crop of wheat, and in all probability, a large crop of corn this year. More of this last crop has been planted than has ever been known before, and the season, *upon the whole*, has been favorable for it. The recent rains improved the wheat very much, but still in some of the Atlantic States great and irretrievable mischief was done by the drought. Especially in Maryland, where in some sections the wheat was ploughed up to make room for corn. But throughout the New England States the prospects are very favorable for wheat as well as corn, and many of their papers predict an extraordinary crop.

The Boston papers say,

"The late plenteous rains have started vegetation forward wonderfully, and our markets will soon be filled with a cheap substitute, in part, for the present costly breadstuffs, &c. The fruit crop is also unusually promising, and if no untoward event occurs, the quantity to be gathered, from present appearances, will double that of several previous years.

"The Ploughman says, grass now looks well, and we have a prospect of a good harvest of hay. Corn will be great *if we have a hot summer.*"

The Cultivator says,

"The spring was cold and backward, as much so as any season for many years. Some kinds of fruit trees blossomed nearly

three weeks later than last season. Of late we have had warm weather, and vegetation is advancing rapidly and gaining upon time, yet it is backward still. Notwithstanding the cold, backward season, the weather has generally been favorable to most crops, and while we have had a good supply of rain, coming frequently in the night, there has generally been a very favorable opportunity for the cultivator to plant and sow; and farmers have been unusually diligent and have planted to a greater extent than usual, stimulated by the great demand for produce, or perhaps feeling their great responsibility, as millions of the human race have been looking to this country to feed them, lest they die of starvation. Grass is remarkably promising."

In New York they seem to have the highest expectations of a large grain crop. An immense deal of corn and wheat have been seeded and the Farmer and Mechanic thus speaks of their prospects:

"We could scarcely imagine a more delightful or promising indication of the coming crops than the present encouraging season affords. With copious showers and a genial sunshine, our farmers and gardeners are enjoying the fruits and bright anticipations of their labors. Our markets are well stored with the fruits and vegetables of the season, and every thing now bids fair for an abundant harvest.

"Throughout the State, good farmers say that they have seldom known the crops to look better than they now do.—The weather has been the very best to bring forward every species of vegetation. Every thing indicates a bountiful harvest. The Lyons Argus says the wheat fields look as promising in that region as they were ever known."

In New Jersey there has been a great increase in the seeded crop, and a good yield is expected. The Trenton News says,

"That in every part of New Jersey, the earth will be taxed to its utmost—that every inch of ground has been put under contribution—that the farmers are laboring

day and night to get in as large crops as possible. One man, who usually plants five acres of potatoes, has put in sixteen; another has doubled his usual quantity of wheat, and a third has cultivated four or five times the usual quantity of corn planted. If the season should prove to be favorable, the crops of the present year will far exceed those of the last.

"It is estimated that the surface planted with corn this year in the State, exceeds that of last year by one hundred thousand acres, which ought to yield three or four million bushels."

In Pennsylvania, the wheat crop suffered almost as much as in Maryland, and a large part of it was destroyed. But the farmers industriously set to work and planted the ground anew in corn, and as things have been gradually improving under the late rains, the average crop is looked for. The Reading Gazette says,

"In that neighborhood everything is growing finely, and the grain crops which but a week ago looked most unpromising, now present a very fair appearance, and betoken a plentiful yield.

"The Lancaster Farmer says: 'Now we believe, (and we speak from personal observation, having traversed a considerable portion of the country within a few weeks by-gone,) that matters are not in reality so bad as represented; but, on the contrary, we feel safe in saying that the crop, taken together, will be nearly or quite an average one.'"

In the whole of the North-West, the prospects have been for a long time worse than have been ever known before. But even there, it seems the anticipations of the farmers were far darker than they ought to have been. Still, it does not even now seem probable that much more than the average crop will be produced, while much more than the average crop ought to have been produced, considering the large amount of grain seeded. A letter of the 12th instant, to the New York Commercial Advertiser, repeats the intelligence that there will be a very short crop of wheat in Indiana and central Ohio. Many fields have been ploughed

up, and others will not yield a fourth of a crop. Michigan is said to be less seriously affected. The Nile's (Michigan) Republican of the 12th instant, says that notwithstanding much wheat has been injured by the fly, still the prospect is that the surplus will be a quarter more than last year. But latterly, things, begin to look much better than they did in those North-West States generally, as the following excerpts will show:

"A letter from Toledo, Ohio, to the N. York Journal of Commerce, states that the surface this year planted in wheat and corn is greatly larger than it was last. The writer states that in Western Pennsylvania, Ohio and Indiana, the wheat crop has been extensively *winter-killed*, but he thinks the extent of the injury has been greatly overrated. Even where the crop has been thinned, he is satisfied the yield will be larger than is commonly supposed.

"The Cincinnati Gazette has no faith in the *croaking* voices sent forth from that region. Wheat, it admits, has had hard weather to stand against, and is now troubled in some sections by a destructive insect; but it is quite certain, it adds, that the re-ploughing and planting of spring wheat, and immense quantities of corn put in under the stimulus of high prices, to say nothing of increased crops of beans, and the exertions that will be made to obtain large yields of potatoes, will more than make up any probable or possible deficiency in the yield of wheat.

"A letter from Cleveland states that the fly is making sad work with the wheat in that part of Ohio. Some fields will hardly return the wheat sown.

"A letter from Kalamazoo, (Michigan,) says, wheat looks well in that county, but adds that West and South one half of the crop has been destroyed by the fly.

"OHIO.—The New Lisbon Palladium gives good accounts of the prospect of the crops in that vicinity. The Germantown Advertiser states that the recent rains have greatly renovated vegetables in that section of the State. The wheat crop promises more than an average one.

"The Editor of the Cleveland Democrat states from the observation of a late trip through Northern Ohio, he is satisfied that the wheat crop and crops generally look full as well as is usual at this season of the year.

"INDIANA.—We have no recent reliable accounts from this State. A correspondent writes, the crops in the vicinity of Wabash county, on the Wabash and Erie Canal, look much more favorable than a month since, and we anticipate a good wheat crop. Corn, we can tell nothing about yet, only our farmers are making great preparations, and are putting in more than usual.

"WISCONSIN.—The Milwaukee Sentinel says, we are happy to hear good accounts of the wheat crop from a very large proportion of our Territory. In the southern portions of Racine and Walworth counties, a good many fields have been seriously injured, but all through the middle, northern and western sections of the Territory, the wheat promises luxuriantly. The number of acres planted too, is very greatly increased over last year, and there is every prospect that the surplus for export next fall will show a proportionate augmentation.

"MICHIGAN.—The Detroit Advertiser of the 24th, gives favorable accounts from parts of the State of Michigan, with regard to the prospects of the coming wheat crop. It says: 'At the early opening of spring there were many apprehensions of a severe winter-kill, but the favorable weather for the last three weeks has allayed all fears, and the crop is coming on finely.'

It is very much to be feared from all that we can learn, that in Virginia not much more than the average crop will be raised, although a far greater amount of grain has been seeded than usual. Until lately the season has not been at all favorable. But it is now still too early to form any definite judgement on the probable corn crop. In the Western Valley of Virginia wheat seems to be better than in our part of the State. Wheat is doing well there, some of it it is said, as well as has been

ever known. In Rockingham we are told there will be a fine crop. Corn is, however, not nearly so good, and without a good soaking rain, great fears are entertained for this staple of the Valley of Virginia.

The Staunton Spectator says, the wheat crop in many parts of Augusta looks well, and will probably be as good, all things taken into consideration, as that of last year. Corn, rye, oats, &c., are not so promising.

The Winchester Virginian states that the wheat crop in Frederick and Shenandoah promises to be a full average one. The grain is of superior quality. Corn is rather backward; but it is too soon to form an opinion in regard to it.

The Fincastle Valley Whig of the 21st ult., states that the wheat crop in Botetourt county is likely to be a very poor one. In a portion of Roanoke recently visited by the Editor, on the contrary, the crop looks quite promising.

The Kanawha Republican says that there is a prospect in that section of a full average wheat crop.

From Wheeling, in this State, however, we hear rather discouraging news about the crops. We are told, on some farms, whole fields of wheat, ten to twenty acres, have turned into cheat, and the cattle have been turned into the fields to pasture.

In North Carolina there is also great complaint about the corn crop, though wheat is doing well. In South Carolina grain is good, but the cotton is suffering dreadfully from the worm in some districts. This is the situation of the cotton throughout the Southern States.

"SOUTH CAROLINA.—In Fairfield District, in South Carolina, the crop of small grain, nearly ready for the sickle, was never more abundant, and the cotton and corn wears a most promising appearance.

"The Charleston Mercury says, we yesterday conversed with a gentleman, an intelligent planter from Fairfield District, in this State, who says that his crop of small grain, nearly ready for the sickle, was never more abundant, and that the cotton and corn in his neighborhood wears a most promising appearance.

"The Concordia (Louisiana) Intelli-

gencer says, its information as to the corn and cotton crops in Upper Louisiana and South-Western Mississippi is very favorable, with few exceptions. The cotton is backward in many places, but looks well for a fair crop.

"A letter from Sumpter District speaks in the most desponding tone of the prospect of the cotton crop in that section of South Carolina.

"We are told by the Tallahassee Journal, of the 12th instant, that 'the warm weather is acting like a charm upon the cotton crop,' and it has encouraging accounts from all parts of Middle Florida. Corn also promises very fairly.

"The Paulding (Mississippi) Clarion, of the 12th instant, says an abundance of corn will be made in that vicinity.—Complaints are made that the cotton is injured considerably by the cut worm and cotton lice; but it thinks that in despite of their ravages, if the remainder of the season proves favorable, a fair crop will be made.

"ALABAMA.—The worm has destroyed the young cotton plants in Baldwin county. Corn is suffering from the same cause.

"The Sandville Georgian, of the 11th instant, informs us that the cotton and corn crops in that part of Georgia are at present very promising. Corn promises a copious yield. 'The stand of cotton (it says) is generally very good, and the plant is now growing rapidly. We hear of cotton blossoms in divers places.'

"The Columbia (Georgia) Enquirer, of the 15th instant, complains of the prospect of the growing crop of cotton in that section. 'The spring (it says) has been every way unfavorable; and now, when the warm weather would justify the hope of a rapid and thrifty growth, it seems that the plant almost everywhere is so far exhausted by a combination of injurious causes, that it is next to impossible for it to revive.' It adds, that the injury is not confined to any particular section. 'From Florida, Alabama, Mississippi and all parts of Georgia—in short, from the whole cotton growing region—intelligence from sources not to be ques-

tioned impresses us with the belief that the prospect, at this season of the year, never was worse.' "

The Buffalo Commercial Advertiser, which the Baltimore Sun says is considered the most reliable authority in all that relates to flour and grain, and probably takes more pains in collecting the statistics of the trade than any other paper in the country, gives a better account from the *West* than we have seen elsewhere. It says,

"There can be now but little doubt that the coming crop will be an abundant one. In the grain growing regions of the *West* there will be a large surplus, as there has been more land sown than last year, and the crops look equally favorable at this season."

From the Richmond Enquirer.

CORN.

Gentlemen,—In compliance with Johnny Raw's request, published in the Enquirer of June 1st, I have to say that there is a period in the life of Indian corn, as in that of all other annual plants, at which the leaves have performed their function and begin to change their color and to dry up. The grain has been formed but has not become hard, though it is glazed, the tassel is dry and the fodder or foliage is in that state which the old Virginia planters call *ripe*, fit to be stripped off the stalks and cured for blade fodder. It is at that time and in that state of the leaves that corn sown broadcast should be mowed for winter food.

Were it cut a little before that period, the leaves and stalk would contain more nutritive matter, which has been taken from them to form the grain. But before that period the flow of sap into the plant from the spongioles of the roots has not ceased; the stalk and leaves are very succulent, and, therefore, more difficult to cure. The changed appearance in the color of the leaves, not from drought but maturation, their having become partially dry at their extremities, the grain having

been formed on such plants as bear grain or ears (for the thick sowing, while it gives more foliage, diminishes the quantity of grain,) give certain indications of the right time to cut and cure the crop. Hoping this explanation will enable your correspondent to secure a good supply of corn fodder,

I am, gentlemen,

Your obedient servant,

JOHN LEWIS.

Llangollen, Ky., June, 1847.

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TERMS.

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WATT'S CUFF-BRACE AND GUAGE PLOUGH.

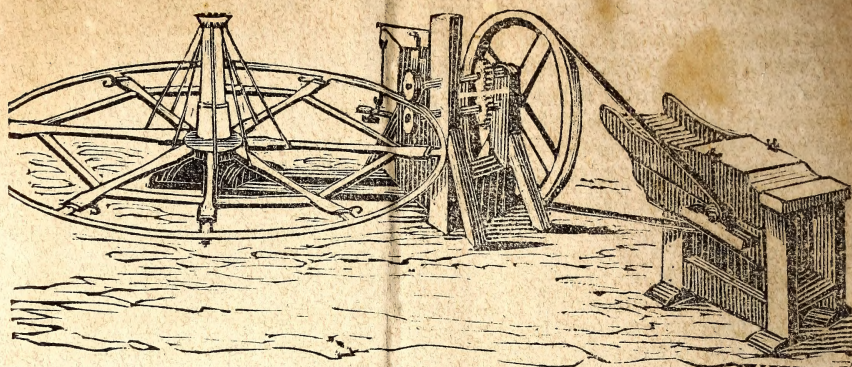
FARMERS are requested to examine our stock of ploughs. We have about twenty sizes, all on the "cuff" plan, by which the beam may be raised or lowered and turned to the right or left to regulate the depth and width of furrow without altering the harness. Some have wrought points and others cast. The ploughs when adjusted to the height of the horse can be made as permanent as any other plough, if not more so. The sizes vary from a light one-horse to a large four-horse; and the prices from \$3 50 to \$14 or \$16.

The four-horse we confidently recommend as superior to any in use in this country. Those who use four-horse ploughs will please call in time to allow us to get them ready for the present season.

For further description see Planter of June, 1842, (with a cut,) November, 1846, and February and April, 1847.

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je—tf Richmond, Va.



HAW'S ADHESIVE HORSE-POWER.

The above cut represents Haw's Patent Adhesive Horse-Power, with a Threshing Machine attached, which is constructed by forming a wrought iron rim, from 26 to 28 feet in diameter, in eight parts, which are placed on the outer ends of eight arms, which answer as levers to attach the horses. The arms, or levers, meet in the centre between two cast iron plates, bolted to an upright piece of wood, called a cone, with a dish-formed plate of cast iron on the top, through which the brace rods pass, for the purpose of supporting the levers or arms. The rim is made to project over the ends of the arms, to admit of its passing between two rollers 9 inches in diameter, on the axles of which are placed two small cog-wheels, which gear into each other, thereby communicating the adhesive power on both sides of the rim to the lower axle, on which is placed a band-wheel 6 feet 6 inches in diameter, which propels the whirl on the drum axle, 6 inches in diameter, giving to the drum or thresher 1,200 revolutions per minute. To get the necessary adhesion, a weight is applied to a compound lever, which bears upon the journal of the upper axle. The great excellence of the above described Horse-Power, consists in durability, simplicity of construction, and ease of draught. There is nothing complex about it. Should it get out of order, it can be repaired by common carpenters and blacksmiths of the country. It is portable and can be set up ready for work in less than three hours' time. It has less friction than any other in use, requiring only one-sixth of the power to overcome the friction, whilst the common geared horse-power requires about half.

We will keep a supply of Haw's Improved Spiked Drums or Threshers, at the Plough

Manufactory of Messrs. George Watt & Co., in the City of Richmond, on Franklin Street, just below Mr. Harden's Livery Stable, where orders will be received for us. We also manufacture a very durable and long-tried Horse-Power, called the revolving lever, which may be worked with two horses. Prices range as follows:

Adhesive Horse-Power, No. 1, with 24 inch drum, complete, for four or more horses,	\$200 00
Adhesive Horse-Power, No. 2, with 20 inch drum, complete, for three or more horses,	170 00
Adhesive Horse-Power, No. 3, with 14 inch drum, complete, for three or more horses,	140 00
Revolving Lever Horse-Power, 20 inch drum, complete,	130 00
30 inch Drum or Thresher,	75 00
24 inch Drum or Thresher,	65 00
20 inch Drum or Thresher,	55 00
14 inch Drum or Thresher,	45 00

One of us will attend in person to setting the Machines to work, free of charge, where the distance does not exceed thirty-five miles from our shop, or from Richmond; over that distance, travelling expenses must be paid. We will deliver Machines in Richmond, or at the Retreat, near New Castle, on the Pamunky River. We wish to sell the patent for that part of the State west of the Blue Ridge and north-west of Fredericksburg. Also the patent for any State in the Union. Terms moderate.

Address Haw & Sydnor, Old Church, Hanover, or at Richmond, Virginia.

EDWARD SYDNOR.

JOHN HAW,

Hanover Co., Va., April 15, 1846.